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The Vision of Security

Quick Start Guide

GV-Control Center V3.2.0.0

Thank you for purchasing GV-Control Center. This guide is designed to assist the new user in getting immediate results from the GV-Control Center. For advanced information on how to use the GV-Control Center, please refer to *GV-Control Center User's Manual* on Software DVD.

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Contents

1. Introduction 1

Packing List 1

Options 1

2. Minimum System Requirements 2

Supported DVR Version 3

3. Installing Control Center 4

4. Overview 5

The Control Center Main Window 5

The Toolbar 6

The Host List 8

The Group List 9

5. Creating Hosts and Groups 10

Creating a Host 11

Creating a Group 12

6. Connecting to Control Center 13

7. Viewing Live Video 14

8. Running the Matrix View 16

9. Running the Video Wall 18

Setting Up a Video Wall Server 18

Adding a Server and Configuring the Layout 20

Activating the Channel and Layout 21

10. Playing Back Video 22

1. Introduction

Welcome to the GV-Control Center Quick Start Guide. In the following sections, you will learn the basic requirements and configurations of using GV-Control Center. For the detailed instructions of use, see the *GV-Control Center User's Manual* on the Software DVD.

Packing List

- GV-USB Dongle
- Software DVD

Options

Device	Description
GV-Keyboard V3	A GV-Keyboard V3 can be used to operate PTZ camera, Matrix View, ViewLog and Video Wall. For details, see *GV-Keyboard V3 User's Manual.*
GV-Joystick	A GV-Joystick can be used in conjunction with GV-Keyboard V3 to control PTZ channels from GV-Control Centers. For details, see *GV-Joystick User's Manual.*
Internal GV-USB Dongle	An Internal GV-USB Dongle provides the hardware watchdog function to GV-Control Center server by restarting the computer when Windows crashes.

2. Minimum System Requirements

Before installation, make sure your computer meets the following minimum requirements:

OS 64-bit	Windows 7 / 8 / 8.1 / Server 2008 R2 / Server 2012 R2
CPU	Core i7 2600K, 3.4 GHz
RAM	8 GB Dual Channels
Hard Disk	1 GB
Graphic Card	AGP or PCI-Express, 1024 x 768, 32-bit color
DirectX	9.0c
LAN Card	Gigabit Ethernet x 2
Hardware	Internal or External GV-USB Dongle

Note:

1. If you are using more than two graphic cards on a server, make sure they are of the same brand, model and driver version to ensure maximum efficiency.
2. We do not recommend installing GV-Control Center and GV-Center V2 Pro on the same PC. Running GV-Control Center and GV-Center V2 Pro on the same PC may result in CPU overload error or system failure.
3. When you find CPU usage is high or live view is unsmooth (dropping frames), you may need to increase the CPU thread and memory or decrease the number of connected cameras to improve the system performance.

Software License

Free License	N/A
Maximum License	Unlimited
Increment for each license	N/A
Optional Combinations	1. Control Center 2. Control Center + Video Wall (1 to 200 license) 3. Control Center + Vital Sign Monitor 4. Control Center + Vital Sign Monitor + Video Wall (1 to 200 license)
Dongle Type	Internal or external

Note:

1. For the Video Wall function, make sure you insert a GV-USB dongle with Video Wall function to Control Center server.
2. It is recommended to use the internal GV-USB dongle to have the Hardware Watchdog function which restarts the PC when Windows crashes or freezes.

Supported DVR Version

The Control Center is compatible with :

- GV-System / GV-NVR V8.5 or later
- GV-VMS V14.1 or later

3. Installing Control Center

1. Plug in the GV-USB Dongle to the computer.
2. Insert the Software DVD to your computer. It runs automatically and a window appears.
3. To install the USB device driver, select **Install or Remove GeoVision GV-Series Driver** and follow the on-screen instructions.
4. To install GV-Control Center, select **Install GeoVision GV-Control Center V3.1.2.0** and click **Yes** to accept the License Agreement.
5. Click **GeoVision Control Center** and follow the on-screen instructions.

Note:

1. By default, the GV-Control Center contains an Administrator account with the login ID **admin** and no password.
2. You may also download the latest GV-Control Center from the GeoVision Website. For details, see *2.1 Installation*, *GV-Control Center User's Manual* on the Software DVD.

4. Overview

The Control Center Main Window

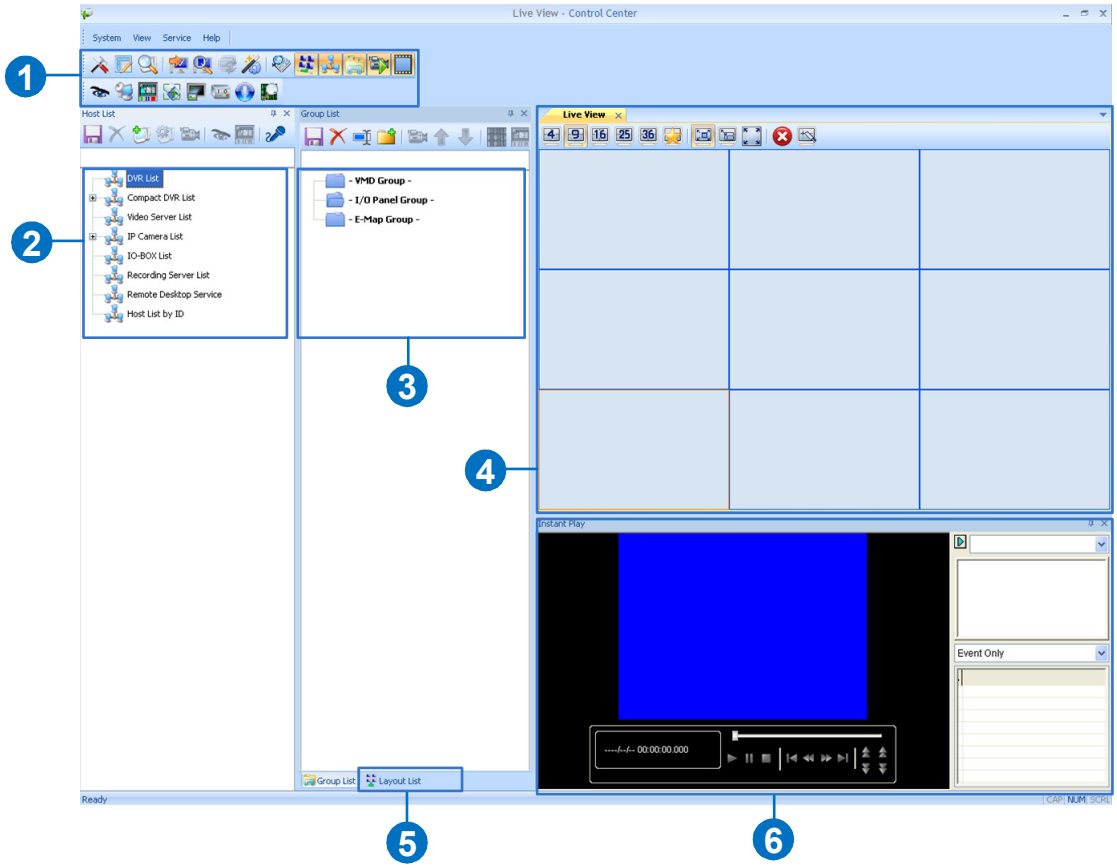

Figure 1

No.	Name	Description
1	Toolbar	See *Figure 2* later.
2	Host List	Displays hosts and its channels in a tree diagram. See *Figure 3* later.
3	Group List	Displays hosts in Groups of VMD, I/O and E-Map. See *Figure 4* later.
4	Live View	Displays images from the hosts. Drag and drop the cameras from the Host List for live view display. See *Displaying Multi Views*, Chapter 3, *GV-Control Center User's Manual* on the Software DVD.
5	Layout List	Click the tab to switch to the Layout List. The Layout List contains lists of layout template for video wall. See *The Layout List*, Chapter 8, *GV-Control Center User's Manual* on the Software DVD.
6	Instant Play	Displays the Instant Play window on the main window for playback. See *Instant Playback*, Chapter 5, *GV-Control Center User's Manual* on Software DVD.

The Toolbar

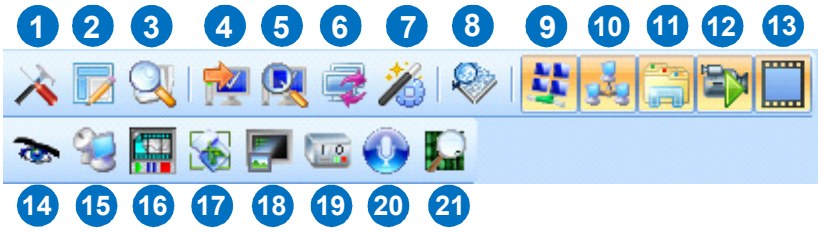

Figure 2

No.	Name	Description
1	Configure	Displays system settings including general settings, network settings, VMD settings, Remote Desktop and Video Wall.
2	Application Position	Configures position and resolutions of application windows, including GV-System / GV-VMS, Remote ViewLog, Remote E-Map, I/O Central Panel, and up to 8 matrices. See *Application Position*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.
3	Search Host	Opens the Search Host window, with which you can detect and add devices of the same LAN to the Host List and select a network card if you have installed more than one.
4	Connect to server	Adds a server to Layout List of a Video Wall.
5	Search Server	Searches for Video Wall servers. See *Video Wall*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.
6	Open Activated Layout	Opens the activated layout on the Control Center's main window. See *Video Wall*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.
7	Batch	Manages mass number of GV-IP Devices with integrated interface. You can change/assign IP address, rename devices, assign NAS and view storage space information of multiple GV-IP Devices. See *Batch Functions*, Chapter 9, *GV-Control Center User's Manual* on Software DVD.
8	Search Server	Searches for any remote servers with Remote Desktop service activated. See *Displaying Remote Monitor, Web Page and Playing Back Videos*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.
9	Layout List	Displays the video wall Layout List on the main window. See *The Layout List*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.
10	Host List	Displays Host List on the main window.
11	Group List	Displays the Group List on the main window.

No.	Name	Description
12	Live View Window	Displays live views collectively on the main window. Drag and drop cameras for live view display. For more detail, see *Displaying Multi-Views*, Chapter 3, *GV-Control Center User's Manual* on Software DVD.
13	Instant Play	Displays the Instant Play window on the main window. See *Instant Playback*, Chapter 5, *GV-Control Center User's Manual* on Software DVD.
14	Remote DVR	Allows the Control Center to access a remote client GV-System / GV-VMS. See *Remote DVR*, Chapter 6, *GV-Control Center User's Manual* on Software DVD.
15	Remote Desktop	Allows the Control Center to access a remote client GV-System / GV-VMS and its desktop. See Remote Desktop, Chapter 6, *GV-Control Center User's Manual* on Software DVD.
16	Remote ViewLog	Allows the Control Center to access the event files of different hosts and play them back. See *Remote ViewLog,* Chapter 5, *GV-Control Center User's Manual* on Software DVD.
17	Remote E-Map	Allows you to monitor client DVR and GV-IP Devices on E-Maps. See *Remote E-Map*, Chapter 9, *GV-Control Center User's Manual* on Software DVD.
18	VMD System	Displays pop-up live views when a motion, input or temperature alert is detected. See *VMD Monitoring*, Chapter 3, *GV-Control Center User's Manual* on Software DVD.
17	I/O Central Panel	Collectively manages I/O devices of different hosts. See *I/O Central Panel*, Chapter 7, *GV-Control Center User's Manual* on Software DVD.
18	Broadcast Service	Speaks to multiple hosts over LAN or the Internet simultaneously. See Audio Broadcast, Chapter 4, *GV-Control Center User's Manual* on Software DVD.
19	Matrix Quick Zoom	Displays a selected camera view on the primary monitor when multiple monitors are used. For Matrix View, see *Matrix View*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.

The Host List

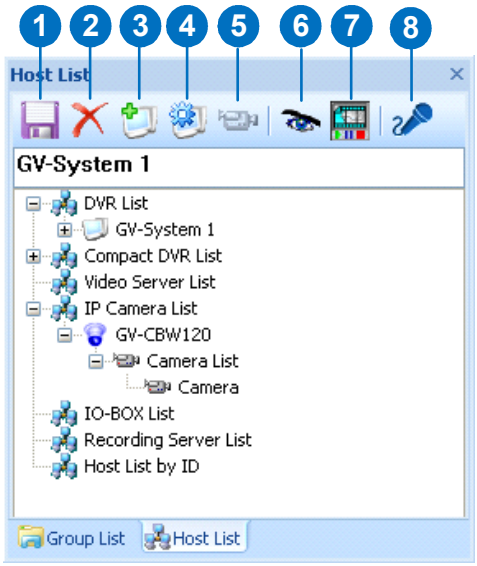

Figure 3

No.	Name	Description
1	Save	Saves the changes made in Host List.
2	Delete	Deletes the selected host.
3	Add Host	Adds a Host.
4	Host Settings	Displays the host settings of the selected host.
5	Camera Information	Click to watch live view, access Remote ViewLog and play back recordings instantly.
6	Remote Control	Access applications including Remote DVR, Remote Desktop and Event Data Query. See *Remote DVR Applications*, Chapter 6, *GV-Control Center User's Manual* on Software DVD.
7	Remote ViewLog	Plays back recordings of the selected camera. See *Remote ViewLog*, Chapter 5, *GV-Control Center User's Manual* on Software DVD.
8	Microphone	Allows the user to speak to and listen to a selected host.

The Group List

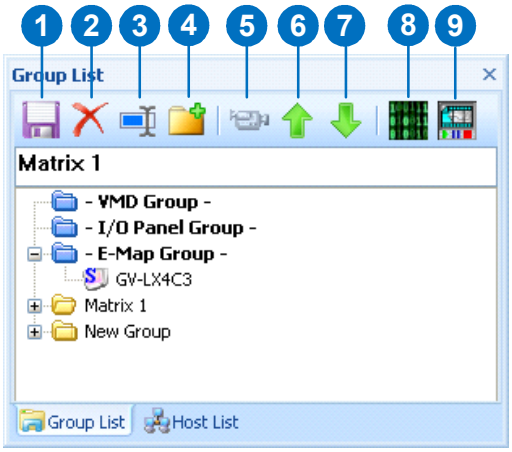

Figure 4

No.	Name	Description
1	Save	Saves the changes made in Group List.
2	Delete	Deletes the selected group.
3	Rename Group	Renames the selected group.
4	Add Group	Adds a new group under the selected category.
5	Camera Information	Looks up device information and access its live view.
6	Move up	Moves the selected camera up in its group.
7	Move down	Moves the selected camera down in its group.
8	Matrix	Displays matrix view. See *Matrix View*, Chapter 8, *GV-Control Center User's Manual* on Software DVD.
9	Remote ViewLog	Plays back recordings of the selected camera. See *Remote ViewLog*, Chapter 5, *GV-Control Center User's Manual* on Software DVD.

5. Creating Hosts and Groups

To create hosts, you can use the **Search Host** function (No. 3, Figure 2) to detect GV devices and compatible third-party IP devices on the same LAN and add them to the Host List, or you can follow the steps in the following section.

Note:

1. To use the Search Host function to locate GV devices, it is required to open TCP port 5201 on the client DVR, TCP port 5202 on the Video Server and Compact DVR, and UDP port 5200 on the Control Center.
2. If antivirus software is installed, the **Search Host** function may be interfered and will not detect the available hosts. In this case, turn off the antivirus software and try again.

Creating a Host

You can create a host of the DVR, Compact DVR, Video Server, IP Camera, I/O Box and Recording Server. The Host Settings dialog box may look different among these devices. The following steps are an example of adding an IP camera host.

1. On the Host List window, click the **Add Host** button (No. 3, Figure 3) and select **Add IP Camera**. This dialog box appears.

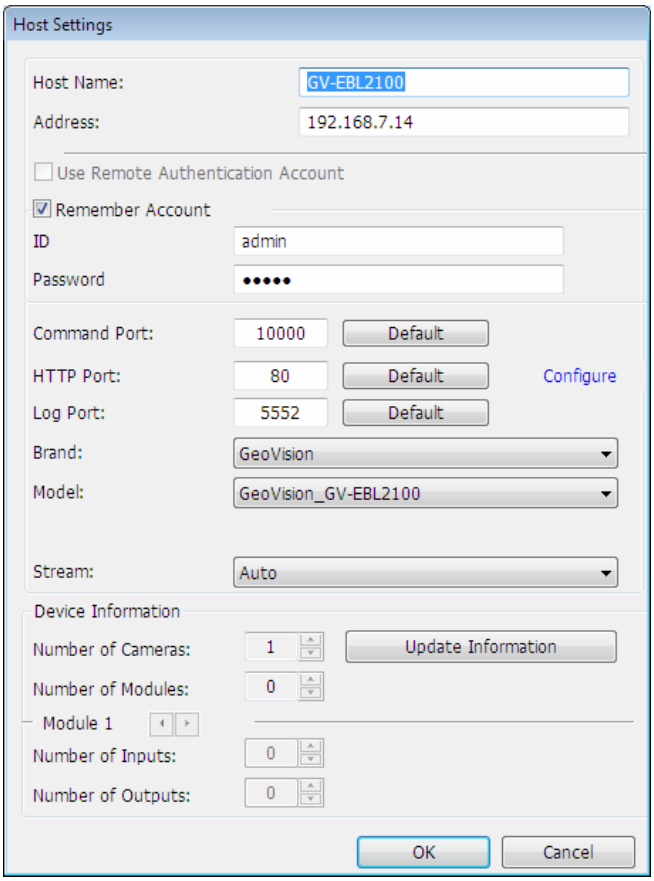

Figure 5

2. Type the host name, IP address, login ID and password of the host. Keep the communication port as default, unless otherwise necessary.
3. Click the **Update Information** button to request the number of cameras, I/O modules and streams of the host. When the update is complete, the message *Update system information successfully* appears.
4. Optionally select Stream 1 or Stream 2 for live view display. By default, the Stream setting is Auto and the received streaming is based on the streaming setting of the connected IP camera.
5. Click **OK** to add the host.

Note:

1. To add a DVR host, it is required to enable **Control Center Service** at the DVR; otherwise the message Unable to Connect will appear when accessing the live view. See *6. Connecting to Control Center* later.
2. The Control Center supports IP video devices using RTSP, ONVIF and PSIA standards. To connect the IP device compatible with any of these standards, select **Protocol** from the Brand drop-down list.

Creating a Group

You can group cameras from different hosts by location and purpose (such as matrix view display).

1. ON the Group List window, click the **Add Group** button (No. 4, Figure 4)
2. Name the created group.
3. Drag the desired cameras from the Host List to the created group.
4. Click the **Save** button (No. 1, Figure 4) to store your settings

6. Connecting to Control Center

You need to configure the GV-System / GV-VMS to access the Control Center remotely. On the main screen, click the **Network** button , select **Control Center Server**, and select **Start Default Service or Start All Service** to connect. When the Control Center Service (CCS) is started, the server is minimized to the system tray. Click the server's icon to restore its window.

For details, see *Control Center Server Window*, Chapter 2, *GV-Control Center User's Manual* on Software DVD.

7. Viewing Live Video

The Live View window is designed to manage the live video.

Right-click any camera on the Host List or Group List, select **Live View** or click the **Camera Information** button (No. 5, Figure 3 or 4) on the Host/Group List toolbar and then select **Live View**. The Live View window appears. The Live View window appears.

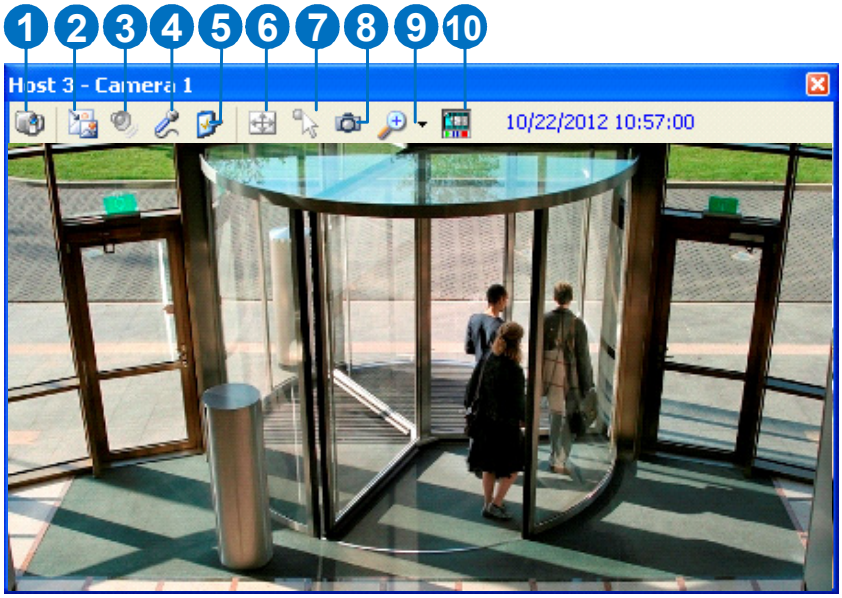

Figure 6

No.	Name	Description
1	Change Camera	Switches to another camera of the same host.
2	Change Size	• **Size:** Changes the size of the live video. The size corresponds to the video resolution set at the host. The size choices are only available when the video resolution is higher than 320 x 240. • **Defog:** Enhances image visibility. • **Stabilizer:** Stabilizes live images. • **Stream1/Stream2:** Chooses codec. • **PIP View:** Refers to Picture in Picture. You can zoom in on the video. • **PAP View:** Refers to Picture and Picture. You can create a split video effect with multiple close-up views on the video. • **Fisheye:** Dewarps the fisheye view to quad view. • **IMV1 Panomorph:** Dewarps the fisheye view. Note this option is only available for a third-party fisheye camera and when the camera resolution is set as 1280 x 1024 or higher.

		• **Wide Angle Lens Dewarping:** Corrects live view distortions. See *Adjusting Distorted View*, *Live View*, Chapter 3, *GV-Control Center User's Manual* on the Software CD.
3	Audio	Receives audio from the host.
4	Microphone	Enables speaking to the host. A microphone must be installed properly in the computer.
5	Setting	Enables and configures the audio and video settings; Adjusts the image color (Normalization) and decreases the fogginess of the image (Sampling Range).
6	PTZ	Activates the PTZ control by selecting PTZ Panel or PTZ Automation.
7	Visual Automation	Allows you to change the current state of an electronic device, e.g. light ON, by clicking on its image directly. The function is only available when the same function is set at the host.
8	Snapshot	Takes the snapshot of the displayed live video.
9	Zoom	Enlarges the video by selecting 1.0x, 2.0x and 3.0x.
10	Instant Play	Plays back the recording in the last 10 seconds, 30 seconds, 1 minute or 5 minutes.

Note: When the video resolution of the IP camera is larger than the screen resolution of the Control Center, the maximum live video you can view is approximately half size of that IP Camera resolution.

For details, see *Live Video*, Chapter 3, *GV-Control Center User's Manual* on the Software CD.

8. Running the Matrix View

Matrix View allows the center operator to monitor up to **96** cameras from different hosts on the same screen.

Highlight a Group and click the **Matrix** button (No. 8, Figure 4). The Matrix window appears.

Figure 7

No.	Name	Description
1	Exit	Closes or minimizes the Matrix window.
2	Screen Division	Select screen divisions with the choices of 1, 4, 6, 8, 9, 12, 16, 20, 24, 32, 36, 48, 64, 80 or 96 channels.
3	Date/Time	Indicates the current date and time.
4	Monitor	Starts or stops monitoring.
5	Configure	Access the Matrix settings and camera properties.
6	ViewLog	Opens ViewLog for playback.
7	Camera Scan	Rotates through screen divisions.
8	PTZ	Displays the PTZ control panel. To display the PTZ control panel, you can also right-click the connected channel and select PTZ Control.
9	Monitoring Status	Monitoring status is indicated by the color of the device name (only supported by GV-IP Devices, GV-VMS and GV-System). • **Red:** A GV-IP Device or a channel from GV-VMS is being monitored and it may or may not be being recorded; A channel from GV-System is being monitored and recorded. • **Yellow:** The camera is not monitored.

Tip: To start monitoring, right-click a channel and select Start Monitoring. The device name bar of the monitored channels change to red when these cameras are being recorded.

9. Running the Video Wall

The Video Wall is an optional feature of the Control Center. The feature allows you to create monitor layout on the video wall. A GV-USB dongle with Video Wall function needs to be inserted to the Control Center server for connection to the Video Wall server. Up to **200** Video Walls can be managed.

Note:

1. To build a Video Wall server, refer to the Minimum System Requirements mentioned earlier in the Quick Start Guide.
2. The number of monitors allowed on a video wall depends on the capacity of the server's graphic card.

Setting Up a Video Wall Server

1. Insert the Software DVD to your computer (where multiple monitors are established for video wall display), select **Install GeoVision Paid Software** and click **Yes** to accept the License Agreement.
2. Click **GV-Video Wall Server** and follow the on-screen instructions.

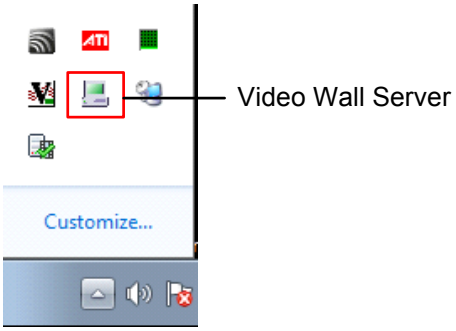

Figure 8

3. Point to **Start** and select **Video Wall Server** to execute the service. The Video Wall Server icon is minimized in the system tray.

4. Right-click the icon again and select **Configure**. This dialog box appears.

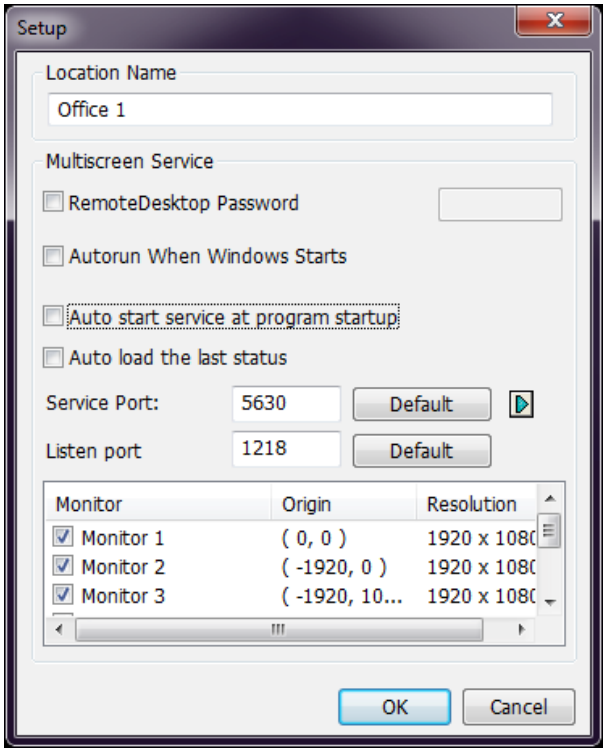

Figure 9

5. Under Location name, give a name to the server.
6. Keep the default Service and Listen port values; otherwise modify them to match the ports on the Control Center. See Step 3, *Setting Up a Video Wall Server*, *Video Wall*, Chapter 8, *GV-Control Center User's Manual* on the Software CD.
7. Select the monitors to be used for video wall display.
8. Click **OK**.
9. Right-click the **Video Wall Server** icon and select **Start Service**.

For detailed settings on the dialog box, see *Setting Up a Video Wall Server*, *Video Wall*, Chapter 8, *GV-Control Center User's Manual* on the Software CD.

Adding a Server and Configuring the Layout

Follow the steps below to add a Video Wall server and configure the channel layout on the Control Center server.

1. Click the **Layout List** button (No. 9, Figure 2) on the toolbar.
2. On the Layout List window, click the **Add Host** button. This dialog box appears.

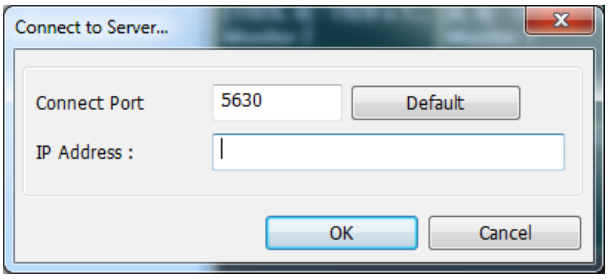

Figure 10

3. Type the IP Address of the remote server and click **OK**. The remote server is displayed.

Figure 11

4. Click the **Add new layout** button to create a new layout. This dialog box appears.

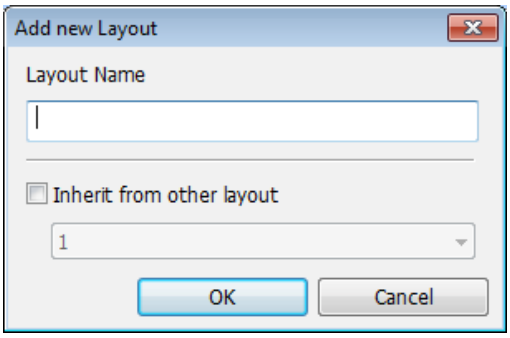

Figure 12

5. Name the layout and click **OK**. The monitors are displayed. In this example, the remote server contains 6 monitors.

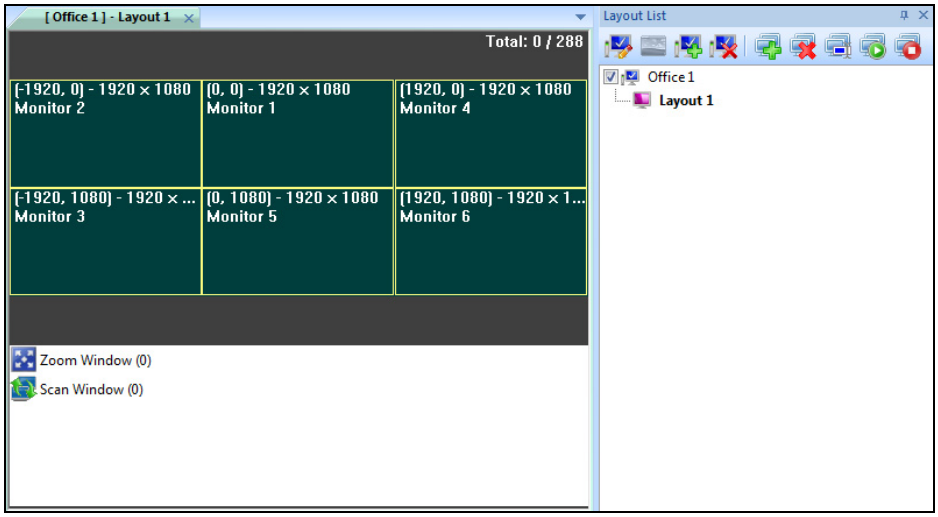

Figure 13

6. Drag and drop the desired channels from the Host List or Group List to the layout.
7. Adjust the channel size and position. You can drag the four corners and sides of a channel to adjust its size, and drop the channel to any location, even across multiple monitors.
8. To create another layout, repeat the above steps.

For more features, see *Adding a Server and Configuring the Layout*, *Video Wall*, Chapter 8, *GV-Control Center User's Manual* on the Software CD.

Activating the Channel and Layout

After you have set up at least one layout, you can activate a channel at a time or all the channels of a layout at once. The activated channel or layout will be displayed on the remote monitors.

- To activate a channel, right-click the channel and select **Activate**. You can repeat this operation with another desired channel.
- To activate a layout, click a layout on the tree view or the tab and select the **Apply the Selected Layout** button.

10. Playing Back Video

You can retrieve the recordings from the DVR or GV-IP Device and play video back.

The following function must be enabled ahead to allow remote access from the Control Center:

- **DVR:** Enable recording and **Remote ViewLog Service**.
- **GV-IP Devices:** Enable recording and **ViewLog Server**.

To start instant playback:

- In the Group List, right-click one camera and select **Instant Play (5 Min)**.
- In Multi View window, right-click one camera and select **Instant Play (5 Min)**.
- In the VMD window, right-click the pop-up camera and select **Instant Play (5 Min)**.
- In the Matrix view, click on the Camera Name, select **Instant Play** and select the time length.

[AVI Player] You can select the camera, date and video events for playback.

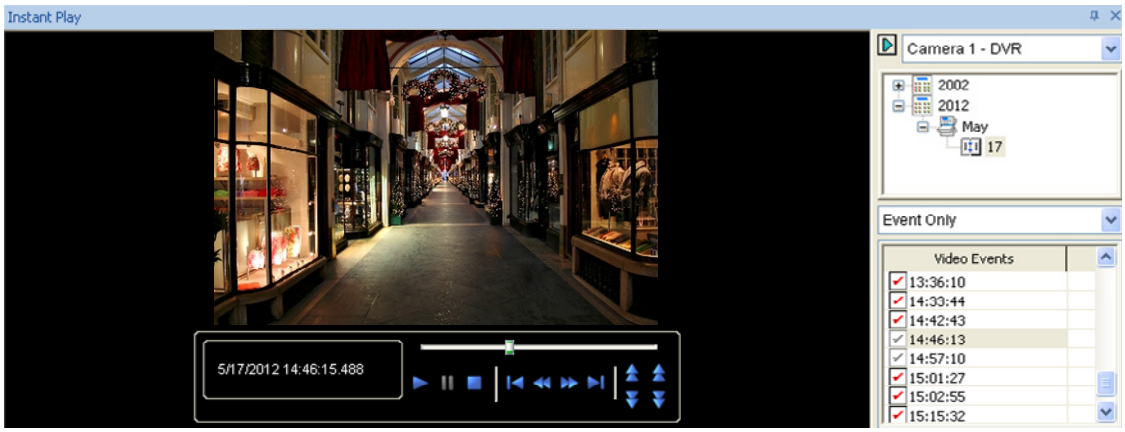

Figure 14

Play	Pause	Stop	Play
Home	Backward	Forward	End
Move to prev 1 min (Left)		Move to next 1 min (Left)	
Move to prev 5 min (Right)		Move to next 5 min (Right)	

Right-click the Playback window to have the following features:

Name	Functions
Play Mode	Includes these options: • **Frame by Frame:** Plays back video frame by frame. • **Real Time:** Plays back video on real time. This mode saves waiting time for rendering, but drop frames to give the appearance of real-time playback. • **Key frame:** Plays back the key frame of the video. • **Audio:** Turns the video sound on or off and reduce noise. • **Auto play next 5 minutes:** Plays back video up to 5 minutes.
Render	Includes these options: • **Deinterlace:** Converts the interlaced video into non-interlaced video. • **Scaling:** Smoothens mosaic squares when enlarging a playback video, and applies the colorful mode to enhance the coloring. • **Deblocking:** Removes the block-like artifacts from low-quality and highly compressed video. • **Defog:** Enhances image visibility. • **Stabilizer:** Reduces camera shake. • **Text overlay's camera name and time:** Overlays camera name and time onto the video. • **Text overlay's POS/GV-Wiegand:** Overlays POS or GV-Wiegand Capture data onto the video. • **Fisheye:** Select **Geo Fisheye** to choose a camera mode; select **Panomorph** to enable a 360 view of a third-party fisheye camera. • **Mega Pixel View:** Enable PIP or PAP view. See *PIP and PAP View*, Chapter 3, *GV-Control Center User's Manual* on the Software CD.

	• **Wide Angle Lens Dewarping:** Corrects image distortion. See *Adjusting Distorted View*, *Live View*, Chapter 3, *GV-Control Center User's Manual* on the Software CD. • **Full Screen:** Switches to the full screen view.
Tools	• **Snapshot:** Saves a video image. • **Save as AVI:** Saves a video as avi format. • **Download:** Downloads the video clip from the DVR or IP video device to the local computer.

[MPEG4 Player] Files saved on GV-NAS Systems are played back by the MPEG4 player:

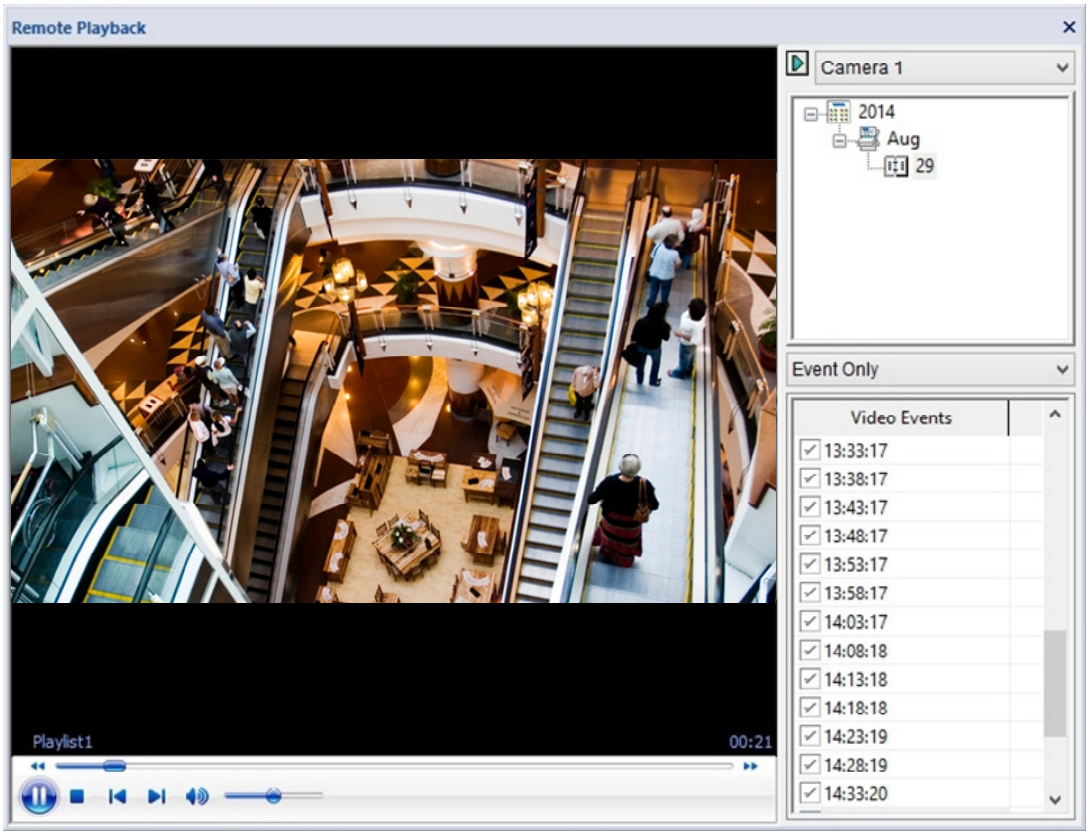

Figure 15